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|-------------------------------|------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 09/634,435 | HU, SHIANN-JONG | |
| | Examiner | Art Unit | |
| | Yogesh C Garg | 3625 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/1/2004 & Telephone Interview on 3/2/2005.
2. ☒ The allowed claim(s) is/are 19-38.
3. ☒ The drawings filed on 16 August 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date <u>3/2/2005</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date <u>11/8/2004</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |



 Yogesh C Garg
 Primary Examiner
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DETAILED ACTION

1. The Applicant's Amendment received on October 1, 2004 in reply to Non-Final office action mailed on July 21, 2004 is acknowledged and entered. The Applicant has amended claims 19, 32 and 38. Currently claims 19-38 are pending for examination.

Response to Arguments

2. Applicant's arguments, see page 16 of the amendment, filed on 10/1/2004, with respect to rejection of claims 19-37 under 35 U.S.C. 112, second paragraph have been fully considered and are persuasive in view of the amendments made to claims 19 and 32 and therefore this rejection is withdrawn.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in telephone interview with attorney Mr. John LaBatt on 3/2/2005.

In the instant application, claims 19, 21, 32, 35 and 38 are amended, as follows:

Claim 19. A system for developing a banking transaction processing system that processes banking transactions for accounts, wherein terminals ~~[[can]]~~ request banking transactions by sending messages to the banking: transaction processing system, comprising:
at least one processor; and

at least one memory accessible by the processor, wherein the at least one memory includes:

a business platform; that comprises platform independent program code for receiving messages and processing the banking transactions, the business platform including:

a set of application transactions. wherein each application transaction [[can]] processes a unique banking transaction and [[can]] undoes the unique banking transaction after the unique banking transaction has been mistakenly processed;

a main module for processing a banking transaction and an undo request for a previously processed banking transaction, wherein the main module initiates at least one of the set of application transactions based on a message received from a terminal and comprising one of the banking transaction and the undo request; and

a message formatter module for providing data on banking transactions based on the messages requesting the banking transactions;

a set of knowledge blocks, wherein each knowledge block [[can]] implements a unique banking operation and [[can]] undoes the unique banking operation after the unique banking operation has been mistakenly processed, wherein at least one application transaction triggers at least one knowledge block to process the unique banking transaction;

a set of system processing functions for providing a platform independent interface between the business platform and a server; and

an interface [that allows] allowing a user to add each of a new application transaction and a new knowledge block.

Claim 21. The system of claim 19 further comprising:

a data dictionary that defines data requirements; and

a generator that [[can]] automatically generates a data layout based on the data dictionary, wherein the data layout is used by the business platform.

Claim 32. A system for processing banking transactions. comprising:

a plurality of terminals for generating messages, wherein each message requests a banking transaction; and

at least one computer. wherein the at least one computer includes:

a business platform, including;

a set of application transactions, wherein each application transaction [[can]] processes a unique banking transaction and [[can]] undoes the unique banking transaction after the unique banking transaction has been mistakenly processed;

a main module for processing a banking transaction and an undo request for a previously processed banking transaction, wherein the main module initiates at least one of the set of application transactions based on a message received from a terminal and comprising one of the banking transaction and the undo request;

a message formatter module for providing data on a banking transaction based on a message requesting the banking transaction;

a database interface module for providing a platform independent interface between the main module and at least one database;

an external interface module for providing a platform independent interface between the main module and the terminals; and

a file interface module for providing a platform independent interface between the main module and a file system of the at least one computer;

a set of knowledge blocks, wherein each knowledge block [[can]] performs a unique banking operation and [[can]] undoes the unique banking operation after the unique banking operation has been mistakenly processed, and wherein at least one banking transaction is processed using at least one banking operation; and

a set of system processing functions for providing a platform independent interface between the business platform and each of the at least one computer.

Claim 35. The system of claim 32, further comprising a set of common functions, wherein each common function [[can]] performs a unique business function, and wherein at least one banking operation includes at least one business function.

Claim 38. A method of developing a banking transaction processing system that includes a business platform for processing banking transactions, comprising:

providing a data dictionary that defines a set of data requirements;

providing a set of skeletons that define the business platform, wherein each skeleton comprises platform independent program code that includes common processing logic for a desired function of the skeleton;

providing a set of file definition files, wherein each file definition file defines a set of properties for file;

automatically generating a data layout based on the data dictionary, wherein the business platform uses the data layout;

automatically generating a database interface module based on the data layout, wherein the database interface module provides a platform independent interface between the business platform and at least one database;

automatically generating a file interface module based on the set of file definition files, wherein the file interface module provides a platform independent interface between the business platform and a file system of a computer; and

allowing a user to modify the set of skeletons;

wherein the business platform includes:

a set of application transactions. wherein each application transaction [[can] processes a unique banking transaction and [[can]] undoes the unique banking transaction after the unique banking transaction has been mistakenly processed; and

a main module for processing a banking transaction and an undo request for a previously processed banking transaction, wherein the main module initiates at least one of the set of application transactions based on a message received from a terminal and comprising one of the banking transaction and the undo request.

Allowable Subject Matter

4 By virtue of the above Examiner's Amendment, claims 19-38 are allowed. Claims 19, 32 and 38 are independent. Claims 20-31, and 33-37 are dependencies of claims 19 and 32 respectively.

Reasons for Allowance

5 The following is an examiner's statement of reasons for allowance:

Claims 1 and 19

The prior art of record neither anticipates nor fairly and reasonably teaches a method and a system for a computer implemented method for developing a banking transaction processing systems that processes banking transactions for accounts, comprising, *inter alia*, the steps of: comprising a platform independent program for processing banking transactions, a main module initiating at least one of the set of application transactions based on a message received from a terminal and comprising one of the banking transaction and an undo request, a set of application transactions, wherein each application transaction processes a unique banking transaction and undoes the unique banking transaction after the unique banking transaction has been mistakenly processed. (see claims 19, 32 and 38).

The above underlined novelty is commensurate with both the original disclosure (see at least page 1, line 15-page 2, line 19, page 17, line 22-page 19, line 15 and page 22, line 13-page 25, line 15) and the claims 19, 32 and 38 (as amended).

Claims 20-31, 33-37.

Since claims 20-31 and 33-37 are dependencies of claims 19 and 33 respectively the reasons for allowance for all the dependent claims is same as for claims 19 and 32 given above.

6. Discussion of most relevant prior art:

(i) The closely applicable prior art of record is referred to in the office action, mailed on July 1, 2004, Talati et al. (US Patent 6,006,277), hereinafter, referred to as Talati in view of IBM publication; " Information Warehouse in the Finance Industry "; Document Number GG24-4340-00; August 1994; International Technical Support Organization, San Jose, hereinafter, referred

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to as IBM and further in view of Resnick et al. (US Patent 6,185,545), hereinafter, referred to as Resnick. However, Talati in view of IBM and further in view of Resnick fails to render obvious the application's above-mentioned underlined unique features(s), see the Applicant's arguments on pages 11-15 in the amendment received on 10/1/2004:

"Initially, Applicant notes that Talati is devoid of any mention of financial and/or banking transactions. This is due to the fact that the teachings of Talati are not related to financial and/or banking transactions. In particular, Talati "relates to a virtual software machine for providing a virtual execution environment in a target computer for an application software program having one or more execution dependencies that are incompatible with a software execution environment on the target computer." Abstract. One possible target computer is a transaction processing system, such as IBM's CICS. The term "transaction" is a term of art that has different meanings in different contexts. For example, in banking, the term represents various banking products and services such as account deposit/withdrawal/transfer, credit/debit card purchases, a loan, etc. To this extent, a user, such as a bank customer, typically initiates each transaction, and the completion of each transaction is from the user's perspective.

..... As a result, the discussion of transactions in a computing environment is not related to transactions for any particular application that may be executed by the computing environment.

This is illustrated further by understanding IBM's CICS as illustrated by Exhibit B. CICS is a transaction processing (TP) monitor that provides transaction processing for IBM mainframes. To this extent, CICS manages the transfer of data between multiple terminals and application programs. As a result, CICS is not limited to, nor does it teach, transactions specific to any particular application. In contrast, CICS implements layers 4, 5, and 6 of IBM's Systems Network Architecture (SNA). In SNA, layer 4 comprises the transport layer that ensures delivery of an entire file or message, layer 5 is a session layer that manages sessions and maintains order in the data flow, and layer 6 is a presentation layer that handles data encryption, conversion, etc. Each of these layers provide the functionality that is then used by applications in layer 7. To this extent, layers 4-6 are implemented as part of the computing environment, independent of any type of application, and are specific to the particular computing environment.

In this regard, the Office misinterprets the IBM reference. In particular, this reference discusses one complete solution offered by IBM for the finance industry. To this extent, since IBM is offering the solution, IBM products, such as CICS, are used. However, this does not imply that CICS is specific to the finance industry. For example, as shown in the Abstract on page iii of IBM, the information warehouse architecture can be applied to various products and industry applications, including the insurance industry and the retail industry. Consequently, CICS provides support for any type of application that executes on an IBM mainframe, such as email, a web browser, word processing, etc. As a result, Talati's discussion of a transaction processing system, such as CICS, is not related to or suggest banking transaction processing systems.

Even if, arguendo, Talati and CICS are analogous to banking transactions, Applicant respectfully submits that claims 19-38 are patentable over Talati in combination with one or more of the cited references. In particular, with respect to claims 19 and 38, Talati fails to disclose, inter alia, a business platform that comprises platform independent program code. Talati addresses the situation in which application programs written for a source computer are incompatible with a target computer. See, e.g., col. 3, lines 61-65. This may be due to an incompatibility at the hardware and/or software level of the target computer. In sharp contrast, the claimed business platform comprises platform independent program code. As a result, the claimed business platform can be implemented on any type of computing system (e.g., CICS, a micro-computer, etc.). The claimed invention of claim 19 addresses variations between computing platforms by including system processing functions that provide a platform independent interface between the business platform and a server. As a result, Applicant respectfully requests withdrawal of the rejection of claims 19 and 38.

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In support of its rejection of claims 19, 32, and 38, the Office apparently alleges that the transaction processing system applications of Talati correspond to the claimed set of application transactions included in the business platform, while the virtual interface system of Talati corresponds to the claimed main module included in the business platform. Initially, Applicant notes, as discussed above, that the claimed set of application transactions and main module are platform independent, whereas Talati's transaction processing system applications (source computer) and virtual interface system (target computer) are each platform specific.

Additionally, Applicant notes that Talati's virtual interface system does not initiate the transaction processing system applications in response to anything, let alone based on a message.

In sharp contrast, the virtual interface system is linked to the previously developed application program, and a portion of the virtual interface system "carries out one or more 'tasks' required by the application program." See, e.g., col. 2, lines 56-67, eel. 4, lines 50-65. Consequently, contrary to the Office's assertion, Talati's virtual interface system does not initiate Talati's transaction processing system applications in response to a received message. As a result, Applicant respectfully requests withdrawal of the rejection of claims 19, 32, and 38.

With further respect to claims 19 and 32, the Office alleges that the virtual interface system of Talati discloses Applicant's claimed set of system processing functions. To this extent, the Office, alleges that Talati's virtual interface system discloses both Applicant's claimed main module, which is included in the business platform, and Applicant's claimed system processing functions, which provide a platform independent interface between the business platform and a server. Applicant respectfully submits that this interpretation is not possible. In particular, by definition, a module (e.g., Applicant's main module) that is included in the business platform cannot provide a platform independent interface between the business platform and a server. As a result, Applicant respectfully requests withdrawal of the rejection of claims 19 and 32.

..... With further respect to claims 19, 32, and 38, the Office alleges that Resnick discloses the claimed ability of an application transaction to both process a banking transaction and undo the banking transaction. Initially, Applicant notes that Resnick cannot be properly combined with Talati since the two are in unrelated fields. Regardless, Applicant further notes that Resnick fails to teach anything analogous to an application transaction that includes both the process and undo functionality or a main module that initiates the application transaction based on the message. Further, the Office cites no motivation included in either reference for implementing both the process and undo functions in a single application transaction. With further respect to claims 19 and 32, the Office fails to cite any reference that allegedly discloses the process and undo functionality included in the set of knowledge blocks. Applicant's claimed application transaction provides modularity and portability that is advantageous in developing the banking transaction processing system. As a result, Applicant respectfully requests withdrawal of the rejection of claims 19, 32, and 38. "

(ii) Another closely applicable prior art of record is referred to in the office action, mailed on September 30, 2003, Zeanah et al. (US Patent 5,933,816) , in view of Schmidt et al. (US Patent 6,006,229), hereinafter referred to as Schimdt. However, Zeanah, in view of Schmidt fails to render obvious the application's above-mentioned underlined unique features(s), see the Applicant's arguments on pages 11-15 in the amendment received on 12/1/2003:

" With regard to the application transactions and knowledge blocks claimed in claims 19, 32, and 38, the Office alleges that Schmidt et al. discloses the claimed feature of an application

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transaction (knowledge block) that undoes a unique banking transaction (operation) after the unique banking transaction (operation) has been mistakenly processed. Applicant respectfully traverses this rejection. In particular, as the Office states, Schmidt et al. discloses a rollback operation "to undo the partially finished but failed transaction." Col. 5, lines 22-23. As Applicant similarly argued with respect to Freund previously, Schmidt et al. fails to disclose a system in which each application transaction (knowledge block) both processes and undoes a unique transaction (operation). Still further, while Schmidt et al. discusses undoing the effects of unsuccessful transactions, this discussion in no way suggests that the ability to process and undo a banking transaction (operation) that has been mistakenly processed be included in an application transaction (knowledge block). This capability is unique to the claimed invention, and beneficially includes in a single module the necessary functions for processing a transaction and undoing its effects should it be determined that it has been mistakenly processed As a result, Schmidt et al. fails to teach an application transaction (knowledge block) that processes and undoes a unique banking transaction as in the claimed invention.....the claimed invention includes the ability to undo a banking transaction (operation) that has been mistakenly processed. For example, under the claimed invention, an application transaction that implements a deposit transaction also implements a withdrawal that undoes the deposit transaction. In this manner, if the deposit transaction is mistakenly processed, the application transaction can undo the deposit transaction by processing a withdrawal. The discussion in Schmidt et al. does not suggest this feature, let alone combining the undo functionality in an application transaction that also processes the banking transaction. As a result, Zeanah et al. and Schmidt et al. fail to disclose this feature of the claimed invention.....Applicant discussed in detail that the functionality provided by the session controller component in Zeanah et al is unrelated to the functionality provided by Applicant's claimed main module..... Applicant's particular claimed combination of modules is clearly distinct from that disclosed in Zeanah et al. To this extent, Applicant's claimed combination of modules provides for increased modularity and portability than that provided by Zeanah et al. This modularity and portability is not an inherent aspect of object oriented programming, rather it is a by-product of the particular selection and implementation of the modules. Object oriented programming merely facilitates the placement of functions into modules. ").

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

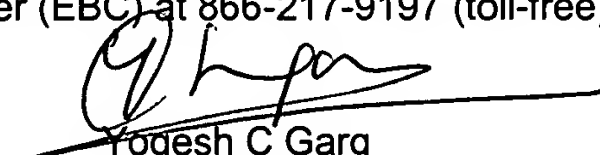
(i) WO 94/18620 to Flores et al. , cited in IDS received on 11/8/2004, discloses a method and apparatus for managing business processes by performing eight key functions including providing a tool to complete a transaction and simple application program interfaces that allow developers to develop new custom applications that are workflow-enabled (see at least abstract). However, Fernando et al. fails to anticipate or render obvious the application's above-mentioned underlined unique features(s). 8.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh C Garg whose telephone number is 703-306-0252. The examiner can normally be reached on M-F(8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wynn Coggins can be reached on 703-308-1344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Yogesh C Garg
Primary Examiner
Art Unit 3625

YCG
3/3/2005